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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,194	07/25/2001	James Andrew Davis	B-4257 618971-3	5298

7590 01/30/2004

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EXAMINER

CHUNG, PHUNG M

ART UNIT

PAPER NUMBER

2133

DATE MAILED: 01/30/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/915,194

Applicant(s)

DAVIS ET AL.

Examiner

Phung M. Chung

Art Unit

2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: _____

1. The specification is objected to because of the following informalities: these, for example, are missing for the specification: 1) Back ground of the invention.

2) Summary of the invention.

3) Brief description of the drawings.

4) Detail description of the drawings.

Appropriate correction is required.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4 and 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Harari et al (5,504,760).

As per claims 1-4, 7-10, and 12-16, Harari et al disclose the invention substantially as claimed, comprising: obtaining parametric values from a set of the storage cells;

Generating a block of stored ECC encoded data, using the obtained parametric values;

Forming erasure information for the block of stored ECC encoded data, using the obtained parametric values; and

Error correction decoding the block of the stored ECC encoded data with reference to the erasure information. (See Figs. 14(a-b), col. 20, line 51 to col. 22, line 40).

As per claim 11 , the teaching of Harari et al have been discussed above. Harari et al further disclose the step of replacing each indentified error with a calculated correct value. (See col. 24, lines 52-53).

As per claim 17, this claim is also rejected under the same rationale as set forth in claim 1.

4. Claims 5-6, 18 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harari et al (5,504,760) as applied to claims 1-4, and 7-17 above, and further in view of Perner et al (6,456,525).

As per claims 5-6, the teaching of Harari et al have been discussed above. They did not disclose the memory device is a magnetoresistive solid-state storage device. However, Perner et al disclose that the data storage device is a Magnetic Random Access Memory device (MRAM) (magnetoresistive solid-state storage device) (MRAM). (See Abstract and col. 1, lines 10-11).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to incorporate the memory storage device as a magnetoresistive solid-state storage device as taught by Perner et al into the invention of Harari et al speed up access time and lower power consumption.

As per claim 18, this claim is also rejected under the same rationale as set forth in claim 5.

As per claim 19-20, the teaching of Harari et al have been discussed above. They did not disclose that the memory storage device is a magnetoresistive solid-state storage device and comprising at least one array of magnetoresistive

storage cells. However, Perner et al disclose that the data storage device is a Magnetic Random Access Memory device (MRAM) (magnetoresistive solid-state storage device) (MRAM) and a least one array of magnetoresistive storage cells. (See Abstract and col. 1, lines 10-12). Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to incorporate the memory storage device as a magnetoresistive solid-state storage device as taught by Perner et al into the invention of Harari et al speed up access time and lower power consumption.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phung M. Chung whose telephone number is 703-305-9686. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on 703-305-9595. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.


PHUNG M. CHUNG
PRIMARY EXAMINER